



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,969	02/20/2002	Nitzan Arazi	2098/10	3801

7590 02/13/2004

DR. MARK FRIEDMAN LTD.
c/o Bill Polkinghorn
Discovery Dispatch
9003 Florin Way
Upper Marlboro, MD 20772

EXAMINER

GARY, ERIKA A

ART UNIT	PAPER NUMBER
----------	--------------

2681

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,969

Applicant(s)

ARAZI ET AL.

Examiner

Erika A. Gary

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on November 24, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the connection with the specific mobile unit" in line

7. There is insufficient antecedent basis for this limitation in the claim as claim 1 only discloses that the base station is connected with at least one mobile unit and also discloses detecting the presence of a specific mobile unit. It is not clear whether or not the at least one mobile unit and the specific mobile unit are one in the same.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen, US Patent Number 6,009,332 (hereinafter Haartsen) in view of Han, US Patent Number 6,321,089 (hereinafter Han).

Regarding claim 1, Haartsen discloses in a wireless communication system comprising a base station connected with at least one mobile unit, a method of

Art Unit: 2681

detecting the presence of a specific mobile unit in a coverage area of at least one neighboring base station [fig. 1; col. 10: lines 42-46]. What Haartsen does not specifically disclose are the following steps typically initiated before a handoff wherein the specific mobile unit is detected in the coverage area of a neighboring base station. However, Han teaches these limitations.

Han discloses the base station connected with the mobile unit provides, independently of the specific mobile unit, to the at least one neighboring base station, information about the connection with the mobile unit, including rough TOD and a device address for the mobile unit [sending TOD and mobile address information is inherent]; at the at least one neighboring base station, receiving information and generating a list of frequencies in which the mobile unit is likely to transmit; and at the at least one neighboring base station, checking for a signal transmitted by the mobile unit [fig. 2].

Haartsen and Han are combinable because they are from the same field of endeavor, that is, handoff in a cellular system. At the time of the invention, it obvious to one of ordinary skill in the art to modify Haartsen to include Han as Han shows typical steps conducted before handoff and to detect a mobile station in a coverage area.

Regarding claim 2, Haartsen discloses at the neighboring base station, monitoring frequencies that are not blocked by interferences [col. 9: lines 13-22].

Regarding claim 3, Haartsen discloses for each frequency that is monitored, maintaining a histogram of a number of hops that have been detected in a certain

duration of time, and their average signal-to-noise ratios [col. 4: lines 23-54; col. 13: lines 44-49].

Regarding claim 4, Haartsen discloses determining a measure of spectral cleanness of a frequency being monitored as a function of signal-to-noise (SNRs) of the hops [col. 9: lines 34-59].

Regarding claim 5, Haartsen discloses monitoring a group (M) of frequencies that have a best cleanness measure most of the time [col. 12: lines 49-67].

Regarding claim 6, it is inherent to periodically monitor a frequency which is not in the group of frequencies having the best cleanness measure in order to perform updated measurements to determine if better frequencies are available.

Regarding claim 7, Haartsen discloses the specific mobile unit is a device selected from the group consisting of: telephone handset, standard cordless telephone handset, cellular telephone handset, personal data device, personal digital assistant (PDA), computer, laptop computer, email server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server, a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player [col. 6: lines 17-21].

Regarding claim 8, Haartsen discloses providing communication links between the base stations, wherein the communication links between the base stations are selected from the group consisting of RF links and a land lines; and transferring connection status information and rough synchronization information between the base stations over the communication links [col. 8: lines 11-14].

Regarding claim 9, it is inherent for base stations to be connected via a wired or wireless local area network (LAN).

Regarding claim 10, it would have been obvious for the wireless communication system to comprise a wireless private branch exchange (WPBX) handling calls from mobile units comprising handsets since Haartsen A discloses a PABX [col. 6: lines 11-13].

Response to Arguments

4. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues that Haartsen is silent on the subject of handoff from one base station to another base station. However, the Examiner respectfully disagrees as Haartsen teaches handoff can be made between the private system base station and the base station of the overlaying cellular system [col. 10: lines 32-46].

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 703-308-0123. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N. Tran can be reached on 703-305-4040. The fax phone numbers for

Art Unit: 2681

the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750 or to the 2600 Customer Service Office at 703-306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive Arlington, VA., Sixth Floor (Receptionist).

Erika Gary
Primary Examiner

ERIKA GARY
PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Erika Gary', is written over the printed name and title. The signature is fluid and cursive, with a large loop at the end.

EAG
February 3, 2004